Workshop Summary

With generous co-sponsorship from the American Gas Association, Indaco Air Quality Services, and Sealweld Corporation, EPA held the 8th Annual Natural Gas STAR Workshop in Houston, Texas, in October 2001. More than 60 participants gathered to:

- Discuss emerging technologies and practices
- Note the accomplishments of the STAR Program and program partners
- Learn what other companies are doing to profitably reduce emissions
- Present new program tools and documents

The Workshop focused on how partners have maximized gas savings and efficiency gains, and introduced partners to the new tools developed over the past year. These include implementation tools such as Lessons Learned studies and PRO Fact Sheets, as well as new Web-based tools for BMP and PRO analysis, data collection and management, and electronic reporting.

Keynote Speakers

Highlights from the workshop included two keynote presentations. Arthur Smith, Senior Vice President and Environmental Counsel for NiSource, Inc., described environmental initiatives being pursued by NiSource. He emphasized that all eligible NiSources business units are participating in Natural Gas STAR, and they have collectively achieved methane emissions reductions of over 11 Bcf. Carl Edlund, Division Director of the Multimedia Planning and Permitting Division of EPA Region 6, shared information on efforts in Texas to reduce ozone and other air pollutants. He discussed Houston's 5-year plan to reach target emissions reductions by 2007, using enforceable commitments such as the Texas Emissions Reduction Plan (TERP).

Awards for Excellence

As always, the awards ceremony was a high point of the annual workshop. Partner of the Year Awards were presented to four companies that have shown superior performance in the Natural Gas STAR Program in the areas of emissions reductions, support of other program initiatives and activities, and involvement in program outreach (see p. 7 for details.) The 2001 winners are:

- BP, Production Partner of the Year
- Columbia Gas Transmission Corp. and Columbia Gulf Transmission Co., Transmission Partners of the Year
- PECO Energy, Distribution Partner of the Year

EPA also presented two new achievement awards:

- Enron Transportation Services, the Continuing Excellence Award
- James Frederick of Unocal Corporation, Implementation Manager of the Year

For the first time, three first-year partners were also recognized for their strong start in implementing Natural Gas STAR. These “Rookies of the Year” are:

- Pioneer Natural Resources, (gas processing sector)
- PG&E National Energy Group (transmission sector)
- Ocean Energy, Inc. (production sector)

EPA Administrator Christine Whitman congratulated the award winners via a videotaped statement shown during the ceremony. She recognized the hard work and accomplishments of all Natural Gas STAR partners, remarking on the Bush Administration's strong support of voluntary initiatives such as Natural Gas STAR.

Technology Transfer through Industry Experience

Jeff Panek of the Gas Technology Institute described results from a study of cost-effective directed inspection and maintenance practices at gas processing plants. The workshop also included presentations from partner companies BP, Dynegy Midstream Services, and Phillips Petroleum on methane reduction projects and tips for successful program implementation. The three presentations are summarized below.

Partner Presentations

Phillips Petroleum Company. Robert Wirtanen presented an overview of the Natural Gas STAR Program at Phillips Petroleum Company, which became a Gas STAR partner in 1999. Highlighting the implementation plant for Phillips from 2001 to 2003, Mr. Wirtanen discussed the seven management practices that Phillips implemented in 2000. These included installing low-bleed controls and actuators, removing dehydrators from service, reviewing condensate storage tanks for vapor recovery, performing directed inspection and maintenance, and installing plunger lifts and pumping units. He also discussed the emissions reduction activities implemented at the San Juan Basin, which included compressor starters, plunger lifts, screw compressors, shutting-in dehydrators, and pump-jacks on coal-bed methane wells. Phillips 2000 reductions totaled 98,000 Mcf.

Dynegy Midstream Services, L.P. Ananthakrishna Shankar presented Dynegy's experiences with the Natural Gas STAR Program. He first discussed Dynegy's participation in GTI's plant study for which Dynegy contributed two host testing facilities. The study results helped direct Dynegy's implementation of Gas STAR. Mr. Shankar recommended gathering emissions reduction information from monthly field meetings, requesting information through e-mail, incorporating the data into an emissions inventory, and requesting assistance from environmental safety and health advisors. Mr. Shankar highlighted plans to conduct directed inspection and maintenance at six upstream compressor stations. He also mentioned Dynegy's future plans, which include four Natural Gas STAR training sessions/meetings in 2002 and increased involvement of management and the media relations department.

BP. Reid Smith gave an overview of the "Green Completions" program at BP. This program aims to reduce flaring and venting at the well site, through steps taken during drilling and well completion. Venting and flaring are prevented by directing initial flow to specially designed surface equipment, and by using a sand separator. The sale of recovered hydrocarbons then offsets the equipment costs. Mr. Smith highlighted a field pilot in Wyoming's Green River Basin. In the pilot, green completion techniques avoided the release of an estimated annual 600 Mmcf of natural gas. The project had an internal rate of return of 100 percent. Mr. Smith noted that a key benefit of implementing green completion techniques is increased production without the expense of drilling new wells.

New Online Program Tools

The Natural Gas STAR team presented three new Web-based program tools– a BMP/PRO analysis tool, data collection and management tool, and online reporting tool– all of which will help facilitate partners' decisions to implement emissions reduction activities and their efforts to track and record emissions reduction data. Available in 2002, the tools will be accessible with a password via the Natural Gas STAR Web site. Following is a brief description of each tool:

The **BMP/PRO Analysis Tool** will allow partners to generate estimates of the economic and environmental benefits of methane reduction activities on a site-specific basis. The tool will calculate capital costs and operation and maintenance (O&M) costs; provide default values for critical capital and annual cost factors, methane emissions reduction factors, and other operating assumptions; and project cash flows during the first 5 years of operation. Users will be prompted to enter site-specific values where available, or use the default values provided. The tool will be ready for beta-testing by partners in spring 2002.

The **Data Collection and Management Tool** will streamline data collection and the annual reporting process. This tool will help partners collect and manage information about methane emissions reduction activities occurring at various locations across their companies by allowing remote users to record site-specific data. Users can enter, save, and view data for all BMP and PRO activities. The tool performs calculations, generates several printable reports, including the annual Natural Gas STAR Report, and allows partners to export data for expanded use. Implementation managers will control and approve remote user access.

The **Online Reporting System** is an option for partners who wish to submit their annual report via the Natural Gas STAR Web site. The online forms mirror the hard copy report forms, allowing partners to enter both current and historical data for all BMPs and PROs within their sectors. Unlike the online data collection tool, a comprehensive data management tool that stores historical emissions reduction data, the online reporting system temporarily stores data for the current reporting year. The online forms will facilitate data entry for partners by performing calculations and providing default values. Partners can access the forms for the spring 2002 reporting period at www.epa.gov/gasstar.

New Lessons Learned Studies

Participants reviewed and commented on drafts of three new Lessons Learned studies covering (1) composite sleeve repair of pipelines; (2) directed inspection and maintenance at gas processing plants and booster compressor stations; and (3) replacing glycol dehydrators with desiccant dehydration systems. EPA thanks the many Natural Gas STAR partners who provided feedback and contributed data and other information to the development of these documents. These 3 new Lessons Learned studies will bring the total available to 17. The new studies will be posted on the Natural Gas STAR Web site by mid-2002.

Keeping Up with Emerging Technologies - the Partner Roundtable

The annual partner roundtable discussion centered on two presentations. Jeff Panek of GTI discussed new and emerging leak detection devices. He queried partners as to their interest in

holding a special hands-on workshop to learn more about these technologies. EPA is collaborating with GTI to sponsor such a workshop this year.

Sushma Masemore, of the Southern Research Institute (SRI) described the Environmental Technology Verification Program (ETV), a joint initiative by EPA and SRI. ETV provides independent, objective performance verification of commercially ready technologies with strong environmental benefit, such as technologies with the potential for greenhouse gas emissions reductions. Currently, Natural Gas STAR is working with ETV to sponsor the verification of Comm Engineering's eductor vapor recovery unit.